PLAY METER

UPDATE EDITION

Volume 6, Number 10 **June 1, 1980**

Rate review hearings begin

Hearings have been given by the Copyright Royalty Tribunal on 1980 jukebox royalty rate adjustments, and a recommendation from that Washington, D. C. panel may take much of the summer to be made final.

Any adjustment of the present $8 per jukebox annual royalty fee would stand for the next 10 years—unless a cost-of-living arrangement is included, as the performing rights societies advocate.

"Right now, we're sort of in the middle," said an attorney for the AMOA, which argued for keeping the royalty rate at the original $8 per machine per year.

Both the AMOA and the performing rights organizations ASCAP and BMI have presented statistical evidence as well as testimony to the CRT for their cases.

ASCAP stands for a $70 per-jukebox fee. A spokesman, who declined to be identified, said this amount was based on studies of the present licensing fees for taverns and night clubs, piped-in music ("mechanicals"), and the amount of jukebox operators' fees paid overseas to performing rights societies.

The $70 per box proposal is "the low end of the range" shown by this study, said the source connected to ASCAP.

However, BMI suggests a $30 per box fee to the CRT, with this rate subject to changes in the consumer price index over the coming decade. The next fixed rate would be determined in 1990.

ASCAP also advocated the cost-of-living added scale.

Nick Allen, attorney for AMOA, said the timing of the eventual rate adjustment was "speculation" at mid-April, when hearings were scheduled to take at least one more week.

One witness scheduled to testify for the jukebox operators' case said a survey of operators by Peat, Marwick, Mitchell and Company shows "the true picture of the industry at this point." The sampling of some 400 operators was presented to the CRT as showing the phonograph industry hard-pressed, having fewer collections over a period of years. A continued $8 per-box rate, the AMOA would contend, represents a greater percentage of receipts going to royalties under these conditions.

AMOA President Bob Nims in New Orleans commented to PLAY METER that the economic survey was "more than adequate" by sampling standards held by the Peat, Marwick, Mitchell CPA consultants. With more than 450 questionnaires mailed in, response was made by 15 percent of those contacted, which is considered a favorable rate of response, and these came from 48 of the United States, Nims said.

Continued on page 2

Stern Electronics is tilting at the college set with its new Ali *pin. At the Play Meter Show in New Orleans, Dr. Alton Ochsner, past president of the American Heart Association, tried the game [above]. Right-to-left are Gary Stern, whose firm provides 20 of the games as prizes in campus fundraising for AHA; Phil Philpot, AHA youth chairman; and Gerry Taylor of National Lampoon, co-sponsor of the campus funds drive.*

Update Edition

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June 1, 1980

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Continued from page 1

"AMOA on behalf of the jukebox industry has really endeavored to do anything possible. In fact, they are the only people involved, proponent or opponent, trying to meet the criteria set forth by the CRT" to present an economic case in the rate review, according to Nims.

The matter was up to the five-member CRT to adjudicate. CRT Commissioner Thomas Brennan said the jukebox rate review, which began April 2, would close evidence April 22. A recommendation on rates would come some weeks later, and rebuttal would then be allowed by either party when the rate figure is proposed by the CRT's findings.

Its recommendation would become effective 30 days after the CRT's decision unless a challenge is issued by any party to the royalties matter.

On the performing rights societies' side, a battery of attorneys represented the case for higher rates. The legal staff included Bernard Korman, general counsel for ASCAP, and BMI Attorney Charles Duncan.

Meanwhile, barely one third of some 330,000 jukeboxes in the U. S. were registered for licensing. As PLAY METER has reported (UPDATE, February 1), the jukebox location lists were not used to distribute 1978 royalties since the performing rights societies agreed to shares of the fees without dispute.

Witnesses before the CRT in April included two economists testifying for the performing rights societies.

In the case coordinated by Nick Allen, the AMOA's witnesses included Michael Giblin, director of special services for Rowe International; former AMOA President Don Van Brackel, and operators Mrs. Leoma Ballard of West Virginia, Jimmy Watkins of North Carolina, and John Strong of Chicago.

Hesch recovers from illness

Former AMOA President Wayne E. Hesch was hospitalized while in Washington, D.C. in April, suffering from a blood clot in one leg. Hesch was in the Capital as representative of the AMOA's Governmental Affairs Committee, involved in the proceedings of the Copyright Royalty Tribunal.

Mr. Hesch returned home to Rolling Meadow, Illinois on April 12. His office reported he was prepared to return to work six days later (as UPDATE was going to press).

Friends of the active operator and AMOA officer may want to wish him well. Hesch's business address is: A.H. Entertainers, Inc., 1151 Rohlwing Road, Rolling Meadow 60008; telephone: 312/253-8300.

Status of new royalty bills

Jukebox operators who may have opposition to paying further royalties to music artists under the 1976 Copyright Law will have interest in two bills pending in the U. S. Congress.

Legislation has been introduced in the 96th Congress entitled the "Performers Royalty Act," House of Representatives number 997. [*See PLAY METER, July, 1979, page 55.*] The bill was assigned to the Subcommittee on Courts, Civil Liberties and the Administration of Justice of the House Judiciary Committee.

Representative John Paul Hammerschmidt, Arkansas, recently wrote a constituent: "I have learned that most broadcasters are totally opposed to the principle of paying record companies and recording artists a new royalty when they already pay the actual creators of the music, the authors and publishers."

He noted that a companion bill, S. 1552, was in the Senate with no action scheduled before the Senate Judiciary Committee at late March.

Operators should cite the bill numbers, H. R. 997 and S. 1552, in voicing to their congressmen their opposition to further royalties.

PLAY METER will continue to cover developments in the copyright royalties issue.

Bally lists Invaders 'hotline'

The correct Bally toll-free telephone number for Illinois residents to receive reports on *Space Invaders*, the pingame is: 1-800-942-9474.

The Illinois number was stated incorrectly in the May 15 issue of PLAY METER due to misprinted information from the manufacturer.

The nationwide toll-free number (outside Illinois) for *Space Invaders* reports by phone is 1-800-323-3377.

The taped messages on the Bally "hot line" are set up for operators and distributors to use to their advantage in stimulating interest in the *Space Invaders* pinball game.

By Pat Matthews
Program/Music Director WQUE New Orleans

Hot vinyl for the summer

For the past year we've heard of the impending doom of the recording industry. Record companies have lost millions and as a result thousands have lost their jobs. Now, it seems someone has uncovered this incredible pirating racket where record product has been duplicated right down to the jackets. In some cases even the "scratchings on the vinyl next to the labels have been copied. What this means is the demand for record product is still with us, but the dollars have been finding their way into the pockets of crooks. Now—let me check those records for this month closely and get on with it!

STEAL AWAY—ROBBIE DUPREE —Elektra E-46621-A

What we have here is a total unknown with what I predict will be *the* record of the Summer 1980. That's going out on a limb, but the song is a toe-tappin' singalong type number. It's vaguely reminiscent of the Doobie Brothers' recent successes, yet is unique in other ways. When was the last time you heard a sitar on a record? Ten out of ten for sure.

CAN'T PUT A PRICE ON LOVE—THE KNACK—Capitol 4853

"Baby Talks Dirty" was "My Sharona" all over again, but this one is literally something else. The Stones are rumored to be releasing their long-awaited lp sometime soon and this one by The Knack could stand--in, in the meantime. The instrumentation is so close to that of "Beast of Burden" it's near sinful. Nevertheless, it's a good song and The Knack still has a few fans...of both sexes. Seven out of ten or better.

WE LIVE FOR LOVE — PAT BENATAR — Chrysalis CHS 2419

This one's from the same lp that gave us "Heartbreaker," a strong record in a lot of ways. This one's even stronger, if that's possible. It's been re-mixed by producer Peter Coleman and has more of a Blondie feel. A strong drum line accentuates the heavenly vocals of the sultry Ms. Benatar. Positive smash and a good female grabber. It's best described as a beautiful rocker. Ten out of ten.

SHE'S OUT OF MY LIFE — MICHAEL JACKSON — Epic 9-50871

Obviously, Epic Records has taken the title of the very first Quincy Jones-produced Michael Jackson single, "Don't Stop Til You Get Enough" very seriously. They're squeezing yet another track from the multi-million selling "Off The Wall" lp and this time it's a ballad. It's a sad love song and could very well garner Mr. Jackson a whole new audience. Definite crossover material, this one's highlighted by some nice piano work and lush strings to go with some very melodic vocals by Pop's hottest commodity. Nine out of ten at least.

THE ROSE—BETTE MIDLER—Atlantic 3656

Here's another ballad from someone else who doesn't usually do them. It's of course the title song from the debut movie of the singer herself. Unlike the initial release "When A Man Loves A Woman," this one should go big time. The audience has been extracted from the soundtrack and what's left is a beautiful love song sung with all the feeling it deserves. What's really good about it is that if you didn't know it came from a movie, you'd never be able to tell. Eight out of ten or better.

DON'T SAY GOODNIGHT (IT'S TIME FOR LOVE)—THE ISLEY BROTHERS—T Neck ZS9 2290

Like most of their songs, it's an entire group composition. It's soulful and makes you wanna get close to the one you love on the dance floor, the couch, or wherever...just as long as the lights are low. The lyrics are sensual, a la Teddy Pendergrass, and it's bound to be a smash R&B record. And unbelievable as it may seem, Top 40 Radio may finally catch on to a definite groove—The Isleys. Ten out of ten on its highest chart.

LOVE STINKS—J. GEILS BAND —EMI America P-8039

Ever since they sang it on Saturday Night Live, this driving attack on romance has been the hot one from the lp of the same name. It even took some of the sales momentum away from "Come Back." Unlike the first single, this one is pure J. Geils, the brand of party rock their fans have come to love and expect. Synthesizer laces this "summer" song with the title that has all the "hook" power that's needed here. May wear thin if interpreted as a novelty tune. But I give it a seven out of ten plus, at any rate.

NAMA pulls high

Attendance at the 1980 Western Convention-Exhibit of Vending and Foodservice Management totaled 3,348 persons, the second highest total since 1975, according to G. Richard Schreiber, president of the sponsoring National Automatic Merchandising Association (NAMA).

Held at the Anaheim, California Convention Center, March 14 through 16, the trade show attracted a record number of 145 exhibitors who occupied 32,000 square feet of booth space. Of these, 31 companies exhibited for the first time at the 1980 show.

A variety of new food products for distribution through vending machines and in employee cafeterias, several companies offering computer services for vending firms and electronic monitoring systems for speedy reporting of sales and machine inventory were notable among the exhibits.

"Vending is still a growth industry but its net profits are not growing fast enough," Allan P. Lucht, president of Servomation Corporation, told the audience in a keynote address. He urged vending companies to keep track of the profitability of individual accounts and all aspects of their operations.

In another keynote speech, Patrick L. O'Malley, chairman of Canteen Corporation, described excessive government regulations and campaigns by consumer activists as a threat to the free enterprise system. Energy conservation, employee motivation, and security measures were other convention discussion topics.

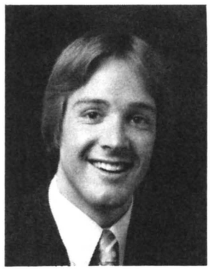
The 1980 NAMA national convention will be held in Kansas City from October 23 to 26.

Suzo's ready

Suzo Trading Company of Rotterdam, The Netherlands, has available its general price list and sub-catalog for solid state electronic equipment.

The supplies and parts catalogs are available from Suzo Trading Co., 85/89 Schonebergerweg, 3023 ZJ Rotterdam, The Netherlands.

On the move



Petit

Sayers

Atari names two regional chiefs

Tom Petit and Lenore Sayers have been named regional sales managers for the coin-operated games division of Atari, according to Frank Ballouz, marketing director of the company.

Petit, who joined Atari part-time in 1977, has held various positions with the company in manufacturing, sales order processing, and most recently as sales representative.

Ms. Sayers returns to Atari after serving as vice president of marketing for the previous nine months at Cinematronics.

Ballouz commented, "She brings six years of experience in all phases of sales and marketing, which is of value to both herself and Atari."

Ms. Sayers will have territorial responsibility in the northeast, northwest, and upper midwest.

In Petit's new post, he will be responsible for all sales in the southwest, southeast, and lower midwest, along with the responsibility for the introduction and sales of products planned for new markets. He and Ms. Sayers will report directly to Don Osborne, national sales manager.

"Tom's rapport with our customers and his success in our marketing programs have contributed greatly to our sales efforts," said Ballouz in commenting on this promotion. "His enthusiasm and thorough industry knowledge make him ideal for this job, and enhances our ability to serve our distributors more efficiently."

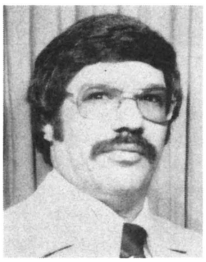
Watner in slot

Data East Inc., has established offices in Palo Alto, California. In doing so Deco has appointed Hal Watner as Director of Marketing for U. S. and European markets.

Deco, one of Japan's top video game manufacturers enters the world wide market with great designs and technical expertise. Originally called Nomura Electronics, they supplied the automotive, semiconductor and computer industries with test and measuring equipment. In 1976 Mr. T. Fukuda, President/Managing Director of Nomura started Data East Incorporated.

After establishing themselves in Japan, Mr. Fukuda appointed Mr. K. Iwamoto, formerly international marketing manager of NEC and ITT, to head the U. S. A. headquarters as executive vice president.

Deco is currently seeking larger facilities on both coasts and plan to service all distributors from these locations.



Watner

Brier

Brier picked by Loewen-America

Mac Brier is the newly appointed vice president and general manager for Loewen-America, Inc.

Brier, a thirty-year veteran of the coin machine industry who has experience in all facets of the coin machine industry, will be working closely with Loewen-America President Bert Davidson to strengthen that firm's sales force distributor network.

Seeburg 'reorganization' related

XCOR reports 1979 net loss

XCOR International, Inc. reported financial results which show that for the year ended December 31, 1979, after deducting two nonrecurring items, the company experienced a net loss of $2,448,000 on revenues of $139,192,000. This compares to the Oak Brook, Illinois firm's revenues and net income of $123,596,000 and $5,412,000, respectively, the year before.

XCOR posted a loss of 79 cents per share in 1979 versus income of $1.86 per share during 1978, which includes an extraordinary credit of $2,015,000, or 69 cents per share, from the utilization of tax loss carryforwards.

In the fourth quarter XCOR reported a loss of $2,122,000 on revenues of $32,720,000 compared with revenue and net income during the year ago fourth quarter of $29,383,000 and $504,000, respectively.

The first of the non-recurring items resulted from a tornado which struck XCOR's Choice Vend vending machine manufacturing facility in Windsor Locks, Connecticut on October 3, 1979, substantially damaging the facility and halting all production until January 14, 1980, and creating a significant shortfall in sales and earnings during the last quarter of the year. The company maintains insurance for damage to the property and its contents as well as business interruption expense.

The company has reached agreement on certain of its claims under its insurance coverage for damages to the building, equipment, and inventory: however, the business interruption claim as a result of the disruption caused by the tornado was in the process of being filed at the time of XCOR's April financial reports. Since the resolution of this claim is dependent upon agreement with the insurance company, no estimate of the recovery is reflected in the 1979 financial statements.

The second item related to XCOR's October announcement of a loss provision for the third quarter of $5.2 million relating to the full book value of securities of the Seeburg Corporation, the carrying value of receivables due from it and the cost of present and future operations of properties leased to it. The loss provision was established after Seeburg Corporation, the purchaser of XCOR's coin-operated phonograph division, became delinquent in the payment of certain of its obligations to the company and had filed for re-organization under Chapter 11 of the bankruptcy code.

James J. Hughes, president and chief operating officer of XCOR, said that despite the loss reported for 1979, he is "optimistic that the company is in basically sound fiscal health and is well positioned to take full advantage of the various markets in which its subsidiary companies compete."

"We are confident that we have put these two distinct and nonrecurring events behind us and that we can look forward to successful operations during the coming year," he said.

XCOR International, Inc. is a diversified manufacturing and servicing company which, through its subsidiaries, manufactures vending machines, amusement games, musical instruments, and hearing aids. It also operates a theater-in-the-round near Cleveland, Ohio.

Gottlieb holds seminars on new system

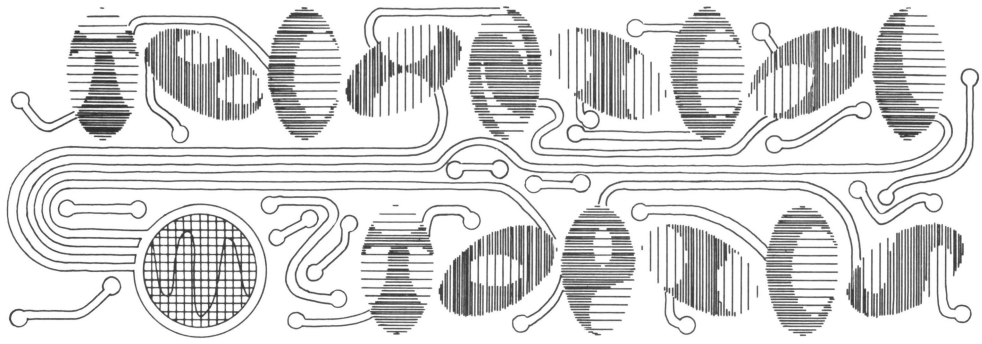
Key Gottlieb distributor solid state service personnel recently attended the company's "Star Series 80 Technical Seminars" in Chicago at the O'Hare Holiday Inn.

The purpose of the two seminars which were held on Tuesday, March 11, and Thursday, March 13, was to familiarize the distributor technicians with the technical characteristics of Gottlieb's new "System 80" solid state electronics.

The program included welcoming remarks by Bob Bloom and Alvin Gottlieb as well as a video presentation centering around the company's 50-year history. A reception and dinner was also included in each two day affair.

The affair was hosted by Dick Finger, Director of Engineering, and the school conducted by George Offshack, Gottlieb Field Service Engineer. Members of the Gottlieb management staff including Robert W. Bloom, Alvin Gottlieb, Gil Pollock, Jack Mittel, and Tom Herrick also attended.

Gottlieb Field Service Engineer George Offshack [right] responds to a distributor tech with an assist from Alvin Gottlieb, executive V. P.



By William Arkush
Microelectronics Division Manager
Exidy, Incorporated
Sunnyvale, California

THE INTEGRATED CIRCUIT:
The 'nuts and bolts'

The integrated circuit is an assembly of component parts. Because of this, packaging considerations are equally as important as the device function. Functionally, the component parts are: the silicon chip, the mounting substrate, the die attach material, the package, the lead frame, the wire bonds, the package lid, and hermetic seal.

With so many items comprising the integrated circuit, the possibilities of things going wrong with it are greater than if the part was a unitized construction. There are the bumped lead devices which directly adhere to the substrate through the use of thermo-compression bonding. This system like the TAB (tape automated bonding) is good for automated assembly—but very few semiconductor manufacturers are building the die for this structure, the assembly procedures are not completely defined, the assembly equipment is hard to obtain and expensive, and not many device types are available through these processes. Therefore, the semiconductor industry remains a wire bond and substrate format.

This is where the circuit die is pasted down to the substrate of the carrier or package with conductive epoxy (palladium-silver), a noble solder paste (silver-iridium), a eutectic die attach (gold), or a thermocompression ball bonding in the case of the flip chip arrangement.

After the die is pasted down using one of these technologies, the wire bonding is the next assembly step. For those devices which have sixteen leads, the die has sixteen metalized lands or pads. These are the terminations for the wire bonds between the lands and the lead attach terminations. A 1-mill wire (.001 inch) is then used to interconnect the chip die to the legs of the package.

The standard wire used is aluminum or gold. Both materials can be attached in one of these methods: ultrasonic, thermocompression, wedge, or ball bonding. Aluminum wire interconnections are applied through the ultrasonic and wedge bonding equipment which does not require the working area to be heated.

In compression, gold wire is usually gold ball or thermocompression bonded. The working area and the wire are heated to the point where they soften and then a pressure is applied while the wire and metalization area are cooled. This method is slower than stitch bonding with ultrasonics, because the time required to heat the junction is greater than ultrasonics where the connection is made in a fraction of a second. In fact, a semi-automatic ultrasonic wire or wedge bonder and a skilled operator can produce an interconnection every second. That is, every wire bond requires two operations so there are two seconds consumed for each completed interconnection.

This means, at best, a sixteen-pin package can be produced every 48 seconds. Sixteen pins at 2 seconds each plus one-second relocate time for each pin, (16 pins X 2 seconds) + (16 pins X 1 second) = 48 seconds/device.

Therefore, at best, a superb machine operator turns out about 60 to 80 parts per hour at about 1 + one part per minute. Multiply this by 7 + productive hours and one operator produces 400 to 600 parts per day per operator.

WEAK LINK IN PRODUCTION

This system of semi-automatic wire bonding is the weak link in production. This is why the semiconductor manufacturers are seriously considering the TAB system of fully automatic chip bonding. With automated equipment we are looking at 1200 parts per hour as a conservative average.

What a difference the production rate will be when more flip chip

New ROMs to modify Sprint 4

As a result of many field requests by *Sprint 4* owners, Atari has developed new *Sprint 4* ROMs to modify the existing game play.

The new ROMs increase player challenge and competition, while maintaining the excitement of the *Sprint 4* driving experience, reports an Atari spokesman.

The new ROMs are designed to decrease the size of the cars, limit the number of drones according to one-, two-, and three-player games, and allow a player bonus for the high score in a four-player game (option selectable). Any start switch starts all players with credit and subsequent coins now start players immediately into the game.

Operators can obtain this new *Sprint 4* modification ROM for under $150 through an Atari distributor, the company reports.

devices are produced on reels of 16 mm film tape. Watching parts being assembled using the TAB format is like watching a newspaper being printed.

Because of the myriad of devices which have been fabricated and are in use daily, the packaging becomes an important part of the integrated circuit. There are plastic, ceramic, hybrid, and metal containers used as packages for all kinds of applications. You will find flat packs, W-packs, DIP (dual in-line package), SIP (single in-line package), plastic packs, ceramic packs, lead forms on substrates, metal headers, hybrid packages, and specially tooled configurations which employ more than one material.

Therefore, and depending on what the device was designed to do, the assembly which is known as an integrated circuit is capable of component failure as is the chip die capable of device failure. Now the component part—integrated circuit (regardless of its integration size LSI-MSI-SSI) is ready to be inserted into someone's circuit board.

Just when I was beginning to understand the part itself, I'm now faced with a larger and more complex problem where one small chip is insignificant to the more complex array of the circuit board.

This means that a circuit board of 100 ICs all being sixteen-pin devices would have 3200 wire bonds to possibly fail (16 pins X 2 bonds) X (100 ICs) = 3200. It would have 100 die attaches which could go bad. There could be 1600 solder joints which could go bad. There could be 100 circuit chips which could go bad. And to top it all off, any one of these problems might not even show up until after it heated up and became unstable.

The job of the technician is thankless but so incredibly important. Analyzing circuits is a chore because of the possibilities that any one of 5000 things could go wrong on a simple board of 100 ICs like the one previously discussed. This article is my way of saluting all the bench techs of the world!

Next in this three-part series on "Semiconductor Device Technology" in UPDATE: Chip functions.

Acceptor hang-ups' cure

By Zac Oliver

Recently, Midway Manufacturing Co. issued a service bulletin referring to free games obtained by flipping pennies up, through the coin return cups, and activating the coin switch.

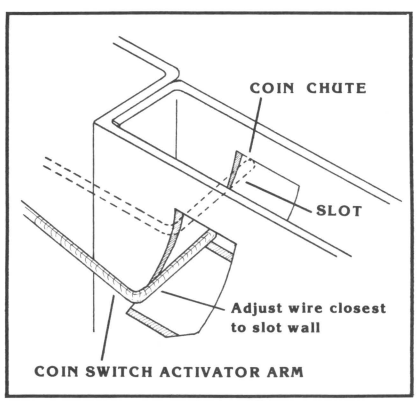
So, if one of your Midway games has been fed with pennies, you can prevent that by ordering the Anti-Penny Field Kit from Midway's Parts Department. The kit part number is Ao90-00064-0000 and instructions for installation are included.

However, there are other methods to insert pennies and/or obtain free games. All that is required is a nickel coin that will hang in the acceptor. Usually, metal acceptors will reject nickel coins, as the coin will slide through the swivel gate, straight down to the return chutes. A damaged nickel coin, however, might hang right after the gate. A penny then dropped will bounce over the nickel and will be directed to the acceptance chutes, activating the coin switch and, what is worse, returning the damaged nickel to the customer. A few adjustments will prevent most nickels from hanging in the acceptor.

Nevertheless, field tests showed us that the most economical solution, in the worst cases, was to replace the acceptor for a plastic one. These new coin acceptors by Coinco, already in use by some manufacturers, are virtually trouble-free. The cost per unit is approximately $12, but sometimes it's well worth it!

Unfortunately, it will not fit in all games. Atari's coin door, left side, due to the coin lockout wire bracket, will not allow the insertion of the acceptor.

Also, the adjustment of the coin switch wire, in Midway's coin door, is important to prevent coins from getting jammed in the last coin chute, just before the cash box. Adjust the wire with a long-nose pliars, so that the short arm of the wireform will move the closest to its slot walls. (See Figure.)



If the cash box cover is not properly positioned it will also cause the coins to hang. Light blows on the door will vibrate the micro switch contacts, now closed, stepping up the credits. Since the coin meter coil is activated during the closure of the switch, overheating of the driver transistor will occur. The cash box cover guides (metal brackets on each side of the cash box pit) might be tightened to prevent the lid from sliding.

Still on *Space Invaders*, when garbage lines appear on screen or extra credits are given, Andy Ducay, service manager, advises:

1. — Check game board for proper RRC capacitor grounding. This refers to earlier boards where some of the capacitors in the network were not properly grounded. (P. C. Ao84-90700-D739) [*See PLAY METER, March 15, 1980, page 68. —Editor*]

2. — Clean game board edge connector and inspect Mother Board 72 Pin connector. You know—the old story retold: Watch for that interface!

3. — When installing or re-installing the game, measure +5, +12 and -5 V. D. C. at edge connector of Mother Board. Use ground reference also from the board and not from the supply. Adjust voltages using pots on Power Supply.

4. — Replace possible heat sensitive 8080 CPU, manufactured by Texas Instruments (TI) with 7919 date code.

5. — Add a Cor-Com line filter (Midway's part number 0017-00003 -0114) to the AC input line and if you want to go strong, add a varistor (typically a V130 LA 10A made by G. E.) across the output line of the line filter.

6. — Inspect soldering of bit shifters on game board (ICs 25S10 or 74151).

†

In all, let's keep those silvery discs rolling in, and as Roger Sharpe always says, be well and prosper.

classified advertising

WANTED: 1941 Gottlieb 'Five-Ten' Pinball. JIM LOOMIS, 437 129th Pl. N.E., Bellvue, WA 98005. Tel.: 206/455-0914.

CONVERSION CARTRIDGE—Play stereo records on Seeburg Monaural Phonos B thru 201—no adjustments required. $24.95 postpaid. Quantity discounts. C.A. THORPE SERVICE, 1520 Missouri, Oceanside, CA 92054.

NEW BLIOTA COIN COUNTER. Electric or Hand Operated. Special. Tel.: 1-800-433-2908.

WANTED: Schematic for Kentucky Derby, mfg. by Buckley Mfg. Co., Chicago. TOM KEIL – 704/3731211 or PO Box 668263, Charlotte, NC 28266.

OLD/ANTIQUE SLOT MACHINES WANTED. Give me a price. I want to buy parts also. JACKPOT AMUSEMENTS, 14216 Clark St., Riverdale, IL 60627. Tel.: 312/849-4041.

WANT TO BUY Used A-1 Sircoma Draw Poker in color and black & white. Tel.: 615/-684-2200. SANDERS & SON DIST. CO., 912 N. Main, Shelbyville, TN 37160.

WANTED: Board Mechanic. Washington, DC Area. Call 703/971-1666.

FOR SALE: Gottlieb Sinbad Pinball $875. Stern's Stars Pinball $825. Bally Night Rider [Digital] $675. Call 212/634-8040. JOHN MONAHAN, 178 92 St., Rockaway Beach, NY 11693.

PARTS: I.C.C. Spitfire & Sky Track; Marvena Mine Sweeper. We have a complete inventory including logic boards. BILL GROSSMAN & ASSOCIATES, Box 5421, Incline Village, Nevada 89450. Tel.: 702/831-2990.

FOR SALE: Bally Console Slots, Sonata 1050 [new], Bally Super Bowler 17'. GRADEN STATE GAME SALES, 1396 Stuyvesant Ave., Union, NJ 07083. Tel.: 201/964-5230.

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WILL PAY $3.50 each, following PLAY METERs: 1974 – December; 1975 – January, February, June/July, August; 1976 – February, March. D & S AMUSEMENTS, P.O. Box 5151, Charlottesville, Va 22905.

WANTED: Captain Fantastic backglass. EDAX AMUSEMENTS, Winfield Scott, 3126 W. Cactus Rd., Phoenix, AZ 85029. Tel.: 602/993-1699.

WANTED: Factory Representative to represent security device manufacturer on commission. Need direct representative in 50 states. Please send background to: Attn.—GENERAL MANAGER, P.O. Box 86, Newton, MA 02164.

FOR SALE: Game Plan Cocktail Pinball Models 110 & 120. Shopped in excellent condition. TOM or ERNIE – 303/623-1577.

SALE – Space Invader Cocktail Tables, like brand new – $995 for one, $945 for 5 and $895 for 10. UNITED STATES AMUSEMENTS, INC., 2 W. Northfield Rd., Livingston, NJ 07039. Tel.: 201/926-0700.

WANTED: Complete odds drum for Evans Winter Book; also pay out cup and Jackpot tokens for same. Call collect: VIKING AMUSEMENTS, 301/956-5943. 102 Orchard Rd., Riva, MD 21140.

FOR SALE: 5 Vega 21s Bar-top computer blackjack game. Ideal for bars, clubs, etc. Must sell. In excellent condition. $600 each or 5 for $2500. Call A & D VENDING – 215/822-7285.

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